

Fox Island Electric Cooperative, Inc.
Knox County
Vinalhaven, Maine
A-898-71-A-N (SM)

Departmental
Findings of Fact and Order
Air Emission License

After review of the air emission license application, staff investigation reports, and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 M.R.S.A., Section 344 and Section 590, the Department finds the following facts:

I. REGISTRATION

A. Introduction

Fox Island Electric Cooperative, Inc. (FIEC), located in Vinalhaven, Maine has applied for an Air Emission License, permitting the operation of a 2000 kW emergency diesel generator.

B. Emission Equipment

Emergency Diesel Unit

<u>Source ID</u>	<u>Max. Capacity</u>	<u>Max. Firing Rate</u>	<u>Power Output</u>
Emergency Generator	18.74 MMBtu/hr	135.8 gal/hr diesel	2780 hp

C. Application Classification

The application for FIEC is classified as non-major based on the diesel emissions. The license is for a non-major source and has been processed as such. With the fuel limit on the emergency generator, the facility is licensed below the major source thresholds and is considered a synthetic minor (SM).

II. BEST PRACTICAL TREATMENT

In order to receive a license the applicant must control emissions from each unit to a level considered by the Department to represent Best Practical Treatment (BPT), as defined in Chapter 100 of the Department regulations. Separate control requirement categories exist for new and existing equipment as well as for those sources located in designated non-attainment areas.

BPT for new sources and modifications requires a demonstration that emissions are receiving Best Available Control Technology (BACT), as defined in Chapter 100 of the Air Regulations. BACT is a top-down approach to selecting air emission controls considering economic, environmental and energy impacts.

A. Emergency Generator

The Emergency Generator was manufactured in 2004 and has an approximate power rating of 2780 HP based on a heat input of 18.74 MMBtu/hr and 36% efficiency. BACT for the Emergency Generator is the following:

1. Total annual hours of operation is limited to 500 hours/year.
2. MEDEP Chapter 106 regulates fuel sulfur content, however the use of 0.05% sulfur by weight fuel is BACT.
3. SO₂ emission data was based on fuel sulfur mass balance.
4. NO_x, CO and VOC emission limits are based upon manufacturer “not to exceed” data.
5. PM and PM₁₀ emission rates were based upon manufacturer “not to exceed” data of 0.029 #/MMBtu with added room to make BACT 0.08 #/MMBtu.
6. Opacity from the Emergency Generator shall not exceed 20% on a six (6) minute block average basis, except for two (2) six (6) minute block averages in a 3-hour period.

B. Facility Emissions

- Emergency Generator hours of operation limited to 500 per year. (based on a 12 month rolling total).

Total Annual Emissions for the Facility
(used to calculate the annual license fee)

Pollutant	Total Tons/year
PM	0.4
PM ₁₀	0.4
SO ₂	0.2
NO _x	14.4
CO	0.6
VOC	0.3

III. AMBIENT AIR QUALITY ANALYSIS

According to the Maine Regulations Chapter 115, the level of air quality analyses required for a renewal source shall be determined on a case-by-case basis. Based on the above total facility emissions, FIEC is below the emissions level required for modeling and monitoring.

ORDER

Based on the above Findings and subject to conditions listed below the Department concludes that the emissions from this source:

will receive Best Practical Treatment,
will not violate applicable emission standards,
will not violate applicable ambient air quality standards in
conjunction with emissions from other sources.

The Department hereby grants Air Emission License A-898-71-A-N subject to the following conditions:

- (1) Employees and authorized representatives of the Department shall be allowed access to the licensee's premises during business hours, or any time during which any emissions units are in operation, and at such other times as the Department deems necessary for the purpose of performing tests, collecting samples, conducting inspections, or examining and copying records relating to emissions. [MEDEP Chapter 115]
- (2) The licensee shall acquire a new or amended air emission license prior to commencing construction of a modification, unless specifically provided for in Chapter 115. [MEDEP Chapter 115]
- (3) Approval to construct shall become invalid if the source has not commenced construction within eighteen (18) months after receipt of such approval or if construction is discontinued for a period of eighteen (18) months or more. The Department may extend this time period upon a satisfactory showing that an extension is justified, but may condition such extension upon a review of either the control technology analysis or the ambient air quality standards analysis, or both. [MEDEP Chapter 115]
- (4) The licensee shall establish and maintain a continuing program of best management practices for suppression of fugitive particulate matter during any period of construction, reconstruction, or operation which may result in fugitive dust, and shall submit a description of the program to the Department upon request. [MEDEP Chapter 115]
- (5) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to Title 38 M.R.S.A. § 353. [MEDEP Chapter 115]
- (6) The license does not convey any property rights of any sort, or any exclusive privilege. [MEDEP Chapter 115]

- (7) The licensee shall maintain and operate all emission units and air pollution systems required by the air emission license in a manner consistent with good air pollution control practice for minimizing emissions. [MEDEP Chapter 115]
- (8) The licensee shall maintain sufficient records to accurately document compliance with emission standards and license conditions and shall maintain such records for a minimum of six (6) years. The records shall be submitted to the Department upon written request. [MEDEP Chapter 115]
- (9) The licensee shall comply with all terms and conditions of the air emission license. The filing of an appeal by the licensee, the notification of planned changes or anticipated noncompliance by the licensee, or the filing of an application by the licensee for a renewal of a license or amendment shall not stay any condition of the license. [MEDEP Chapter 115]
- (10) The licensee may not use as a defense in an enforcement action that the disruption, cessation, or reduction of licensed operations would have been necessary in order to maintain compliance with the conditions of the air emission license. [MEDEP Chapter 115]
- (11) In accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department, the licensee shall:
 - A. perform stack testing to demonstrate compliance with the applicable emission standards under circumstances representative of the facility's normal process and operating conditions:
 - 1. within sixty (60) calendar days of receipt of a notification to test from the Department or EPA, if visible emissions, equipment operating parameters, staff inspection, air monitoring or other cause indicate to the Department that equipment may be operating out of compliance with emission standards or license conditions; or
 - 2. pursuant to any other requirement of this license to perform stack testing.
 - B. install or make provisions to install test ports that meet the criteria of 40 CFR Part 60, Appendix A, and test platforms, if necessary, and other accommodations necessary to allow emission testing; and
 - C. submit a written report to the Department within thirty (30) days from date of test completion.[MEDEP Chapter 115]
- (12) If the results of a stack test performed under circumstances representative of the facility's normal process and operating conditions indicate emissions in excess of the applicable standards, then: [MEDEP Chapter 115]

- A. within thirty (30) days following receipt of such test results, the licensee shall re-test the non-complying emission source under circumstances representative of the facility's normal process and operating conditions and in accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department; and
 - B. the days of violation shall be presumed to include the date of stack test and each and every day of operation thereafter until compliance is demonstrated under normal and representative process and operating conditions, except to the extent that the facility can prove to the satisfaction of the Department that there were intervening days during which no violation occurred or that the violation was not continuing in nature; and
 - C. the licensee may, upon the approval of the Department following the successful demonstration of compliance at alternative load conditions, operate under such alternative load conditions on an interim basis prior to a demonstration of compliance under normal and representative process and operating conditions.
- (13) Notwithstanding any other provisions in the State Implementation Plan approved by the EPA or Section 114(a) of the CAA, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any statute, regulation, or Part 70 license requirement. [MEDEP Chapter 115]
- (14) The licensee shall maintain records of malfunctions, failures, downtime, and any other similar change in operation of air pollution control systems or the emissions unit itself that would affect emission and that is not consistent with the terms and conditions of the air emission license. The licensee shall notify the Department within two (2) days or the next state working day, whichever is later, of such occasions where such changes result in an increase of emissions. The licensee shall report all excess emissions in the units of the applicable emission limitation. [MEDEP Chapter 115]
- (15) Upon written request from the Department, the licensee shall establish and maintain such records, make such reports, install, use and maintain such monitoring equipment, sample such emissions (in accordance with such methods, at such locations, at such intervals, and in such a manner as the Department shall prescribe), and provide other information as the Department may reasonably require to determine the licensee's compliance status. [MEDEP Chapter 115]
- (16) **Emergency Generator**
- A. FIEC shall limit the operation of the Emergency Generator to 500 hours/year, firing diesel fuel with a maximum sulfur content not to exceed 0.05% by weight. Fuel use records showing the percent sulfur of the fuel for the diesel

unit shall be maintained to demonstrate compliance with the sulfur limit. Compliance with the hour limit will be determined by a log or an hour meter. [MEDEP Chapter 115, BACT]

- B. Emissions from the Emergency Generator shall be limited to the following [MEDEP Chapter 115, BACT]:

<u>Pollutant</u>	<u>lb/MMBtu</u>	<u>lb/hr</u>
PM	0.08	1.50
PM ₁₀	n/a	1.50
SO ₂	n/a	0.96
NO _x	n/a	57.70
CO	n/a	2.25
VOC	n/a	1.12

- C. Visible emissions from the Emergency Generator shall not exceed 20% on a six (6) minute block average basis, except for two (2) six (6) minute block averages in a 3-hour period. [MEDEP Chapter 101]

(17) **Payment of Fees**

FIEC shall pay the annual air emission license fee within 30 days of **August 30th** of each year. Pursuant to 38 MRSA §353-A, failure to pay this annual fee in the stated timeframe is sufficient grounds for revocation of the license under 38 MRSA §341-D, subsection 3. [38 MRSA §353-A]

DONE AND DATED IN AUGUSTA, MAINE THIS DAY OF 2004.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: _____

DAWN R. GALLAGHER, COMMISSIONER

The term of this license shall be five (5) years from the signature date above.

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: July 26, 2004

Date of application acceptance: July 26, 2004

Date filed with the Board of Environmental Protection: _____

This order prepared by Mark E. Roberts, Bureau of Air Quality